

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Amendment of Part 101 to permit)	WT Docket No. 02-146 and
development of millimeter wave services)	Public Notice DA 04-672
)	
)	

**PROPOSAL TO DEVELOP AND MANAGE
INDEPENDENT DATABASE OF SITE REGISTRATIONS
BY LICENSEES IN THE 71-76 GHZ, 81-86 GHZ AND 92-95 GHZ BANDS**

REPLY COMMENTS

Frequency Finder, Inc.TM, a female-owned and operated Florida Corporation, offers Reply Comments.

Frequency Finder's offices are at 101 Demorest Square Suite E, Demorest, Georgia 30535.

Comments in the form of Proposals were submitted by us and by three others: Comsearch, NECA and Micronet. We are primarily concerned with certain implications and statements in the Comsearch proposal. In order of appearance, they are as follows.

"Based on our extensive spectrum management experience, our ongoing interaction with industry stakeholders and our intimate knowledge of the issues surrounding the 70 – 90 GHz bands, Comsearch is uniquely qualified..."¹ Though Comsearch was party to the WCA 60+ GHz Committee ("WCA") deliberations, there does not appear to be anything in its published documents which would uniquely qualify anyone, and Comsearch is not the only entity with intimate knowledge of the issues. Indeed, the admirable thrust of the WCA has been to publish its work so that any entity, whether Database Administrator ("DBA") or potential licensee might understand its proposed coordination process.

¹ Comsearch proposal , Page 3

Comsearch asserts that it would be “inefficient and impractical for multiple parties to share the database manager duties and responsibilities.”² To be sure, exchanging data among multiple DBA’s does introduce several other processes, especially in a quasi-real time registration database. While we would also be pleased to be the only selectee, we can (as we have proposed) easily create the requisite software to permit no noticeable difference to the user in a multiple DBA scenario, as we now do for Part 90 coordinations. This process is neither inefficient nor impractical. We note, however that though Comsearch is the database service provider for the Part 90 Wireless Medical Telemetry Service³, it has resisted the FCC-mandated exchange of data with all five remaining database service providers and wished to charge all of us for data access.

We disagree that “the requirement to time/date stamp registrations in order to provide first-in-time protection cannot be easily achieved in a multiple database/manager configuration.”⁴ We could share our gateway service provider software, which would create one central entry point for all incoming data to be stamped, and would then distribute the data to any number of DBA’s. Or, one could negotiate a lateral exchange of data nearly instantaneously. All DBA’s would use Universal Coordinated Time (Zulu or “UTC”), and the tiny increment of time between stamping and lateral notification would ensure a reliable and trustworthy process.

Comsearch then asserts, “trying to interface with multiple databases or database managers would only inject delays into the process and result in an overly complex situation.”⁵ Using a gateway or lateral transfer would not introduce any delay, though there might be a second or two during which a DBA might wait for notification or confirmation of notification from other DBA’s. This would not, however, delay any action *within* the notifying DBA’s system. Lateral notification flexibility is already designed into our coordination system and has had years of successful and reliable use as well as providing choices among Part 90 database service providers..

² Ibid., Page 7

³ Ibid., Page 6

⁴ Ibid., Page 8

⁵ Ibid., Page 8

Comsearch's last point against multiple DBA's is that this Docket allocates virgin spectrum and the bands, : "therefore do not present the need for more than one database manager to administer. ... Therefore, until the number of registrations reaches a critical level and .. a single database manager can no longer adequately administer the bands..."⁶ This point again ignores any benefit of choice between DBA's, no matter how small the volume of link registrations. We obviously cannot speak for Comsearch, but we do not ever anticipate an unmanageably large number of registrations, and we are surprised that Comsearch would imply that there might be a volume of stored link registrations which could not be adequately managed. Our existing service with sixty million emission records in Part 90 would have no practical upper limit on the number of entered registrations, especially given the simpler data format envisioned by this Docket.

The Comsearch Flow Chart at the end of its proposal refers to "Interference Analysis" (also labeled by Comsearch in its text as "Interference Harmonization"⁷). We are not sure what distinguishes these terms from Frequency Coordination, other than that

- 1) Frequency Coordination is commonly understood to be a pre-process, separate from filing or (in the case of mm-wave) registering;
- 2) Frequency Coordination is not universally required; and
- 3) Frequency Coordination is not necessarily a standardized process.

Like Comsearch, we participate in TIA and generally applaud the work of the WCA insofar as it better defines the methodology for prevention of interference to incumbents from new assignments. And though TIA 10-F has several problems in its applicability to mm-wave links as well as certain overbroad categorizations of methodology⁸, we agree with Comsearch that interference detection should be part and parcel of the registration process. As a result, we are unsure why the Commission specifically requested that proposers state whether they would offer Frequency Coordination. If it were to control the per-link registration fee, we agree with

⁶ Ibid., Page 8

⁷ Ibid., Page 20

⁸ We have made an attempt to revive the finalization of TIA 10-G, which would correct these oversights.

Comsearch that a well-designed database could perform this analysis essentially in real time with no additional costs to the user, and it has been a part of our design to do so. If on the other hand, by Frequency Coordination one strays into system design (“Plan for us a system to implement last-mile wireless connectivity for Gettysburg”), where one must research site availability as well as link registration interference potential, this is clearly beyond the scope of a database manager under this Docket. In Part 90, both meanings are indiscriminately labelled “Frequency Coordination”, with the result that there is a wide variation in work done by coordinators to produce a single frequency recommendation. Thus we agree that “Interference Analysis” should be part of the registration process, but see also the utility of a larger Frequency Coordination service for entities not willing or able to design their own systems.

Finally, we would like to offer an alternative to the Comsearch flow chart for the case of multiple DBA’s using differing databases. If market pressures on user pricing of services is a major reason for selecting multiple DBA’s, we wonder, like Comsearch, if requiring a single shared database for both development and administration would achieve the desired result. For example, if Comsearch were to develop an Oracle-based database and we were to share it or and/or share in its development, two major advantages to users would be lost from our side: the man-years already invested in our engine which would substantially reduce development costs and hence user fees, and also the optimized query speeds which only a dedicated and optimized database engine can accomplish. We do not in any way intend to imply that Comsearch or either of the other two proposers will use Oracle or any other existing or custom database product, only that developing such a product is a major investment of time and resources which we have already largely finished.

The principal difference between the Flow Chart proposed by Comsearch and ours is that we show the exchanges between multiple selectees, should there be more than one. With our plan, each link may be tagged as part of a system for the applicant’s convenience. Upon uploading an individual link or system of links to the Frequency Finder servers, a Globally Unique Identifier (“GUID”) is assigned, and data validation and preferably interference analysis is performed, with the failing links removed from further processing and the

applicant notified. Passing links are date/time stamped and sent to NTIA and the other DBA's (if any). They will then be checked for compliance with the Quiet Zones, Environmental Assessment, International Coordination requirements and Glide Slope/Structure Height. If NTIA returns a "Yellow Light" or any of these compliance checks fails, processing stops until the appropriate authority issues a clearance and the applicant is notified accordingly. If one or more of the compliance checks cannot be resolved, or if NTIA after post-Yellow-Light processing cannot approve a link, it is failed, and both applicant and other DBA's are notified. When both NTIA and compliance checks have a "Green Light", the link is registered, dated for construction period compliance and notified to the applicant and other DBA's.

At no time is any delay introduced into the system by the multiple DBA notification requirement, nor is the lateral DBA notification process "overly complex". It does require a GUID in case of simultaneous submissions to different DBA's, as time stamping may not be unique. It also requires exchange of status changes in individual link processing, such as Quiet Zone or IRAC denial and subsequent purging, but both of these are simple and common database practices and will not much affect the development or maintenance costs of the requisite software.

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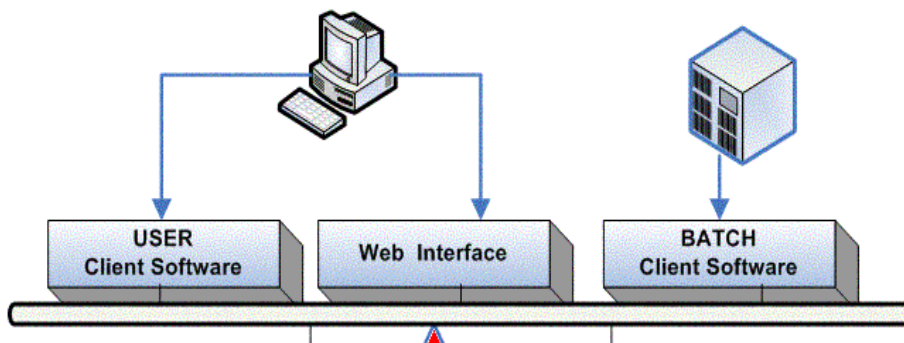
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/s Peter Moncure (I certify by this line that I have personally typed and submitted this document on behalf of Frequency Finder, Inc. and that my signature is on file at the FCC)

April 2, 2004



Attachment 1: Flow Chart of Proposed Millimeter Wave Database

FCC Docket 02-146

Frequency Finder, Inc.
April 2, 2004

